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MR. PRESIDENT AND GENTLEMEN,

THE members of this society will, no doubt, recollect that at the December meeting I brought before them, as a casual communication, "Artificial teeth swallowed or impacted in the pharynx." In the discussion that followed some remarks were made calculated to lead the members to believe that these cases are of such rare occurrence that they are very seldom recorded, but Mr. Thos. Rogers at the following meeting in January stated that he had obtained a list of similar cases from the medical journals, and suggested that an abstract be published in the "Transactions," as many of the members might like to refer to them, without caring to hear them read *in extenso*. This suggestion the meeting adopted, and eventually the matter was left in my hands. I wish this evening, with your permission, to make some observations on the summary I have prepared, and although it is not my intention to read all the cases, I desire to enter more particularly into the general treatment when such accidents occur; and I may here observe that many of the numbers of the medical journals containing accounts of these cases are out of print, so that it becomes

the more desirable that a record be preserved, that members of our profession (more particularly in the country, where surgical aid is not so readily obtained) may be informed as to the best course to pursue where a foreign body has become impacted in the pharynx, or the treatment to adopt when it has found its way into the stomach.

I have, in all, been able to report twenty-five cases; some are recorded *in extenso*, and some I have only alluded to. The difficulty I have had to contend with is not from the paucity of cases but their number and similarity, and I feel justified in stating that this accident occurs more frequently than members of this society would readily believe; and I think we should have no difficulty in collecting in England alone, if we desired it, at least fifty well-authenticated cases, and this, I have no doubt, the discussion of this evening will substantiate.

A SUMMARY OF CASES WHERE ARTIFICIAL TEETH
HAVE BEEN SWALLOWED, OR HAVE BECOME IM-
PACKED IN THE PHARYNX.

COMPILED, WITH NOTES, BY

FELIX WEISS, L.D.S.

Suggested for Publication in the "Transactions" by THOMAS

ARNOLD ROGERS, M.R.C.S. L.D.S., &c.

THE accidental swallowing of artificial teeth, although of rare occurrence, is occasionally met with, and presents many points of interest, not only to the general medical practitioner, but also to the dental surgeon. An account of the best recorded cases and their treatment cannot therefore fail to be interesting to the members of this Society. The event is one attended with considerable danger to the patient, and has in some cases ended fatally.

"The lodgement of foreign bodies," Sir James Paget observes, "in places where they are least likely to be, may produce symptoms very similar to those of organic disease;" while the removal of artificial teeth from the pharynx or the œso-

phagus with forceps, or by the operation of pharyngotomy or œsophagotomy, is a proceeding requiring great skill, considerable firmness, and an intimate knowledge, not only of the surrounding parts, but also of the character of the artificial work likely to cause such mischief.

For the convenience of reference these cases may be divided into four classes :—

1. Where artificial teeth have got into the pharynx, œsophagus, or stomach, and been successfully removed with forceps, &c.
2. Cases in which the knife has had to be used.
3. Cases where Artificial Teeth have been swallowed, and passed by the patient; or ejected: and,
4. Where Artificial Teeth have been swallowed and forced into the stomach; and cases where death has ensued.

CLASS I.—WHERE ARTIFICIAL TEETH HAVE GOT INTO THE PHARYNX, ŒSOPHAGUS, OR STOMACH, AND BEEN SUCCESSFULLY REMOVED WITH FORCEPS, &c.

CASE I.

A Case in which Artificial Teeth were lodged between the Tongue and Epiglottis.

Communicated to the *Medical Times and Gazette*, January 18th, 1862.
by SIR JAMES PAGET.

In July, a gentleman, sixty years old, after being engaged all day in more than usually fatiguing business, and exposed to cold

air, felt faint and ill in the evening, and went to his bedroom at the hotel in which he was staying. While lying down, faint, or, perhaps, in the beginning of a slight epileptic seizure, he asked the servant to take out for him his artificial teeth,—nearly complete separate sets for the upper and lower jaws. The servant, he believed, took them out. Of what immediately followed he could remember nothing more than that he became much more ill, with difficulty of breathing, and a sense of choking and suffocation, in which, in great anxiety and alarm, he sent for medical help. He was found suffering with much difficulty of swallowing and some dyspnœa. His tonsils appeared much enlarged and unusually red. These symptoms were treated, and in some measure relieved; and when one set of his teeth was missed on the day after the beginning of his illness, his medical attendants, who suspected that they might have been swallowed, were begged not to speak of them to him, for fear of the excitement and alarm that such a suspicion might excite in him. All the severity of his symptoms being subdued in a few days, the patient returned to his house at Rhyl, where Mr. Theed, as usual, attended him. For the first few days, Mr. Theed saw appearances of slight inflammation of the fauces, but these soon subsided: from that time nothing morbid could be seen in his throat. He had considerable and increasing difficulty of swallowing, was obliged to drink very slowly, and to cut all his solid food into very small fragments, and force them down his throat with gulping. Occasionally he was almost choked by food becoming involved in a tenacious mucus, which appeared to be secreted in large quantity at and beyond the fauces. Occasionally, also, he vomited after taking food. He had frequent short, “hacking” cough; and once or twice hawked up a little blood. He suffered no considerable pain; but felt constriction about his cricoid cartilage, and always referred to that part as the seat of obstruction hindering his swallowing. His voice was rough, and rather hissing; his breathing sometimes with wheezing.

Many times, while watching these symptoms, Mr. Theed suspected that they were due to some foreign body in or near the larynx: but he could see none; and the patient, as often as in-

quiries were directed to this point, declared somewhat impatiently that the thing could not be. Especially when with the tardily-given permission of his relatives, he was asked if the false teeth, which he had lost on the night of his illness, might not have slipped into his throat, he maintained that it was quite impossible; for what he had lost was a whole upper set which, he believed, had been unluckily thrown away with the water into which they were put at night. The piece was far too big, he said, to go into his throat, or to be there without his knowing it. However, as none of his symptoms diminished and he was becoming very thin and feeble, Mr. Theed, in November, brought him to London for consultation. His feeble appearance, his dull, pale face, his emaciation, and the recital of his case, made me fully expect that he had cancerous stricture of the upper part of his œsophagus. On examining his mouth and fauces, I could see nothing unnatural till, on extremely depressing the back of the tongue, I saw something white near his epiglottis—but too obscurely to guess what it was. Passing my finger to the side of the epiglottis, I felt teeth there, and soon hooked out the whole lost set, of which, with their gold palate-plate, and other fittings, the adjoining sketch will tell very well the size and other characters.



The piece lay between the base of the tongue and the epiglottis, very closely fitted to all the surface on which it rested. The

teeth were directed upwards, and I believe the incisor teeth were next to the epiglottis, and the notch in the palate-plate next to the root of the tongue.

The most remarkable point of this case, next to the fact of the patient being unconscious for more than three months of what he had in his fauces, is that a thing so large as that which the sketch shows could be out of sight at the root of the tongue. It may be well, therefore, to repeat that it was completely invisible, except when the base of the tongue was exceedingly depressed, and even then only a small part of it was obscurely seen. To this, and to the patient's dread of any other examination than that with the eye, it must be ascribed that the lost teeth were not discovered long before I saw him.

It may be worth notice, that the patient referred to the parts about the cricoid cartilage, as the place of obstruction in swallowing. This may be an instance of transference of morbid sensation, similar to that by which the irritation that excites coughing, wherever its true seat may be, is felt as if it were at the top of the larynx. A similar deceptive transference of sensation was observed in a lady whom I saw with what I supposed to be cancerous stricture of the upper boundary of the œsophagus. She always pointed to the cricoid cartilage as the place of obstruction: but her disease proved to be a cancerous ulcer of the tongue immediately in front of the epiglottis, and her pharynx and œsophagus were healthy.

Since the removal of the displaced teeth, the patient has regained health, and Mr. Theed's last report of him is "I think him as well as before" the accident.

P.S.—Since this narrative was in print, Mr. Theed has written that the patient has had "a very severe attack of epilepsy, which lasted for five or six hours, during which time the convulsions were so violent that if I had not removed (though with great difficulty) his *full* set of teeth, he would inevitably have broken them into pieces. This, I think, elucidates the previous mystery."

CASE II.

*A Case where an Artificial Plate with False Teeth was
Swallowed and Removed.*

Communicated to the *Lancet*, May 13th, 1871, by Dr. JOHN MATTHEWS.

ON the night of Sunday, March 26th last, I was called up at 1.30 A.M. to see Mrs. G. J——. The messenger only waited to say that she was choking, and ran off. On arriving at the house, I was informed that the family had been aroused by the screams of the sufferer, who was liable to frequent epileptic fits. On reaching the bedside, she was found clutching at her throat, labouring for breath, and partially unconscious, having evidently just had a severe attack. She could not swallow, nor speak much above a whisper. It was then observed that a plate holding six artificial teeth, known to be in her mouth when she went to rest, had disappeared. As it could not be found anywhere, the inference naturally arose that she had swallowed it during her fit; but of this we were uncertain, since she very often misplaced or hid articles of dress, ornaments, &c., during the half-consciousness succeeding her attacks.

I immediately introduced a finger as far as possible down the throat, but could feel nothing, although it reached below the glottis. The patient was so much distressed by this, that I only repeated it once with a finger of the other hand; but to no purpose, nor could any prominence be felt externally. In the absence, therefore, of absolute proof that she had swallowed the teeth, I thought it might be an aggravated case of hysteria or epileptic spasm of the pharynx; and, having prescribed accordingly, left her for a few hours, enjoining a more careful search for the missing teeth. On visiting her at 10 A.M. on Monday, I found matters *in statu quo*. She had not been able to swallow either food or medicine; but the dyspnœa was not so severe.

I then explored with both fingers; but to no purpose, and left, expecting that if the plate were there it would slowly find its way into the stomach. At 2 p.m. no alteration; teeth not found. I then proposed a consultation with Mr. Holmes Coote; and he accordingly saw her at 6.30 p.m. He also was in considerable doubt as to whether the teeth were there or not, since he could not feel them either by the finger or a pair of long forceps which he brought with him. I may add, that our efforts were seriously impeded by the strenuous resistance of the sufferer, especially with Mr. Coote; and she finally declared that she would not suffer him to touch her any more, otherwise I have no doubt that he would have relieved her. We then left, having directed a dose of castor oil to be given in the morning.

On Tuesday morning I visited her. The castor oil ordered could not be taken, and she was still in so much distress that, after a gentle remonstrance, she promised to be more submissive to further exploration. This I attempted still with the finger, feeling sure that the obstruction was within its reach, if her description of her suffering were accurate as to place. On this occasion the left finger went further than before, reaching about an inch below the glottis (I had previously used the right finger without success); and I then had the satisfaction of feeling with my nail the edge of the plate. The patient was gasping for breath during this proceeding; I therefore removed my finger, and after a brief interval reintroduced it, sliding down at the same time, close to it, a pair of polypus forceps, by which I was able to grasp the thin edge of the plate, which was lying with its long axis transversely, its hollow closely applied to the back of the trachea, the teeth downwards. Finding it immovable except by much force, and unwilling to risk laceration of the œsophagus, after another brief interval I once more inserted the left finger and forceps, grasped the plate, and then slid the forceps to its other end, so as to tilt it by the aid of the finger, when it was at once easily extracted. All the symptoms were of course immediately relieved. There was very little, in fact scarcely any, bleeding; and in two days the patient was as well as usual.

The accompanying woodcut is from a photograph of the plate, of the exact size. The view shown is of the part towards the patient's back, the thin edge being uppermost.



I have been asked why, when I could not *at once* feel the plate with the finger, I did not explore with a bougie or a probang. My reply is—1st, that I never use an instrument when there is the least chance of a finger being successful; 2nd, that I had reason, as I have before said, to think that it would prove to be within reach when the sufferer was quieter; 3rd, that I always found the glottis so open that I should very likely have pushed such an instrument into it; and, lastly, because I did not like to run the risk of pushing the plate down into the stomach. I cannot help thinking this likely to be a very dangerous event (or proceeding), not only from the probability of laceration of the œsophagus by the angles and edges of so large a foreign body, but still more from the chance of its producing a fatal intestinal obstruction, not to speak of the very great anxiety of mind inflicted on all concerned until it shall have passed, if it eventually do.

I think we may learn from this case not to give up an apparently hopeless effort too hastily, and that epileptics should not wear artificial teeth when going to sleep or at night, or indeed at any other time, unless properly secured from displacement.

CASE III.

*Artificial Teeth Swallowed, Detected in the Stomach, and
Extracted.*

(*The Lancet*, Feb., 1870.) MR. L. S. LITTLE'S CASE.

MR. L. S. LITTLE read at the Royal Medical and Chirurgical Society, Feb. 8th, 1870, a report of a case in which a plate with artificial teeth was swallowed, detected in the stomach, and extracted. A woman was admitted into the London Hospital who two days previously during an epileptic fit had swallowed a gold plate to which some artificial teeth were attached. This produced so much irritation that no food had since been retained, and as the foreign body could readily be felt in the stomach by means of an ivory-tipped probang, Mr. Little passed an ordinary œsophageal coin catcher, and after several attempts succeeded in hooking the plate and drawing it up as far as the pharynx, where it lodged. Considerable difficulty was experienced in removing it from this situation, although it was ultimately effected, and the patient recovered without any bad symptom. The plate, which had sharp projecting extremities, measured $1\frac{3}{4}$ inch in length by $1\frac{1}{4}$ inch in width, and fixed to it were three incisor teeth, one canine, and one bicuspid. The author advocated attempts at extraction in similar cases, urging that if a foreign body has passed down the œsophagus and through the cardiac orifice of the stomach, no great difficulty will be met with in its withdrawal through the same passage, provided no force be used, and he referred to some experiments made by Mr. Pollock to show that the removal from the stomach of even a small plate by the natural efforts is very improbable.

CASE IV.

Foreign Body in the Œsophagus.

(*Medical Times and Gazette*, Dec., 1857). Communicated by a Provincial Practitioner.

I WAS awoke at midnight by a patient who, when admitted, could only crawl in and sink upon a chair, at the same time with ghastly countenance, pointing to her throat, ejaculated, "Swallowed teeth." I examined the pharynx and œsophagus, but for some time in vain, the teeth were beyond my grasp, until the retching produced by my finger raised them, to sink again instantly.

I took a long pair of curved polypus forceps, oiled my left forefinger and drove it deeply in the gullet, following this finger with the forcep-blades, opened them, and straightway withdrew from its awkward situation a full-sized gold upper plate, on which were eight artificial teeth with a pivot half an inch in length. That this had scratched the lining membrane seemed plain enough; a streak of blood, much after-pain, and many days' dysphagia, spoke of some mischief done, but all was soon well again. The patient acknowledged that once before she had found the teeth loose in her mouth upon waking. On this occasion failing to extract them from her throat, she had made the rash attempt to swallow them entire, in which she would, no doubt, have succeeded but for the sharp pivot-pin, by which it lodged itself within her gullet, at least half-way down.

CASE V.

Impacted Denture in the Pharynx.

Communicated by Mr. FELIX WEISS; "*Transactions of Odontological Society*," December, 1876.

This case has been so recently brought before the Odontological Society that it is hardly neces-

sary to introduce a summary of it here. It may, however, be interesting to see an exact facsimile drawing of the artificial teeth—perhaps the largest piece of work that has ever been recorded as passing into the pharynx.



CASE VI.

Impaction of a plate of Artificial Teeth in the Pharynx during a period of five months.

Communicated to the *Medical Press and Circular* by Dr. GEOGHEGAN,
March 14th, 1866.

A gentleman about 60 years of age requested me to inspect his throat, which his friends feared was about to become the seat of cancerous disease. I learned that five months previously he had been seized, *whilst in bed*, with difficulty of breathing, and a sensation as if a bit of rough cane was moving up and down in his throat.

He found that liquids and pulpy matters could be swallowed, but that deglutition of solids had become impossible. Matters had so continued up to the period at which I was consulted.

He now evinced slight hoarseness, and there was unusual fullness, with increased breadth externally in the situation of the base of the tongue and of the pharynx. The foreign body could now, however, be defined from without. Great relief was obtained from the application of a blister to the neck. An experienced practitioner who was called in at the time of the occurrence was informed that no cause except "cold" could be assigned in explanation of the symptoms. Being unaware that a plate of false teeth had been habitually worn, and the patient himself not having volunteered any statement upon the subject, the greatest difficulties interposed in the attempt to estimate the real nature of the case.

On inspecting the fauces, I could discover nothing more than the increased vascularity so commonly observed in the throat of an habitual smoker. Passing my finger well down the epiglottis, I at once encountered a hard body, which on further examination was found to traverse the entire breadth of the pharynx, and to have become impacted there, owing to the entanglement of its sharp and projecting extremities in the opposite sides of the canal. A curved catheter wire, when caused to strike the foreign body, elicited a clear ringing sound. An attempt to move the body caused efforts to vomit, spasmodic cough, and the ejection of abundant mucus, tinged with blood *of an arterial tint*.

With the above phenomena before me I inquired whether at any of his meals he was conscious of having swallowed any hard or unusual substance? To this he replied in the negative, but then, apparently for the first time, recalled the fact, that on rising in the morning following the occurrence he had missed *his tooth plate*, and stated that he imagined he had dropped it, and it had been thrown away by his servant, he therefore dismissed the matter from his mind. The cause of the mischief thus stood revealed.

Having explained to the patient the risks that might be expected to attend on the attempt at extraction, I proceeded to operate. In the first place I tried to disengage the ends of the plate, having passed a stout and well-curved catheter wire beneath its centre. Eventually I used a pair of polypus forceps

through an opening in the plate where two incisors were wanting, and happily its removal was crowned with success.

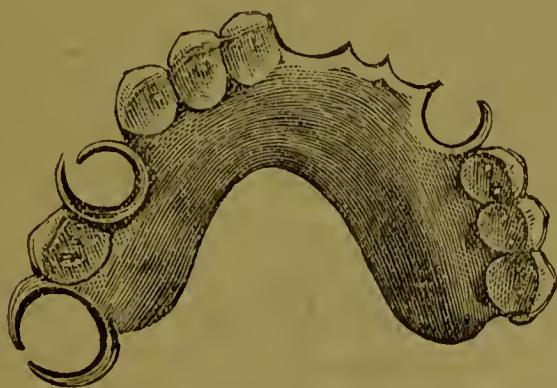
The plate proved to be a vulcanite one, and had on it five artificial teeth. The removal of the offending body was speedily followed by the disappearance of the chief symptoms ; but even seventeen months after the accident uneasiness was felt at the right side of the neck, and solid food, unless well masticated or in small volume, requires to be washed down by a mouthful of fluid.

CASE VII.

*Large gold plate, with seven mineral teeth and three clasps,
impacted in the pharynx.*

(Communicated by Mr W. R. Wood, L.D.S.)

Miss C., an epileptic patient, accidentally swallowed her artificial teeth at 8 o'clock in the morning.



They fixed themselves low down in the pharynx, and Dr. Graham, of Weybridge (where the lady was stopping at the time), not having suitable instruments, sent for Mr. Thomas Smith (Bartholomew's Hospital), who arrived at 6 p.m. the same day, and with a long pair of pharyngeal forceps removed them. He had to use great force, and considered himself

justified in doing so, as the teeth had been so recently swallowed, and no ulceration of the mucous membrane could have taken place at so early a date. The patient had no bad symptoms, and although the throat was considerably lacerated, she made a good recovery.

The gold plate is $2\frac{1}{4}$ inches by $1\frac{1}{2}$, the length of the external circle being exactly 4 inches.

CASE VIII.

Vulcanite suction-plate, with five teeth, impacted in pharynx.

(Communicated by Mr Thomas Smith.)

Eliza B., æt. 22, came under my care at St. Bartholomew's Hospital on the 3rd of January last. She had been disturbed from her sleep the previous night by pain in the throat, and on examination she missed from her mouth the artificial teeth she had been wearing. On admission to the hospital, she complained of great pain and sensation of choking, and could only swallow fluids with great difficulty.

On pushing my forefinger far down the throat I could just touch a hard surface, evidently some foreign body. Taking a pair of strong curved œsophagus forceps, I managed to seize this substance, but could not dislodge it without using undue violence. After three or four attempts, I succeeded in drawing the teeth so far upwards, that with the left forefinger I could push back the pharyngeal wall, and liberate the entangled denture.

The foreign body consisted of a vulcanite suction-plate with five teeth attached. The girl had for a few days great pain in swallowing, and seemed very poorly; she, however, insisted upon leaving the hospital, but was glad enough to return on the 8th, and by the 15th was quite restored to health.

CASE IX.

Vulcanite plate, with teeth and two gold wires, swallowed.

(Communicated by Mr. Thomas Smith.)

A young man, aged about 20, called upon me at 2 in the morning on the 23rd of January last, saying that in his sleep

he had swallowed a plate with teeth attached, and two gold hooks, one on either side. He went to bed with it in his mouth, and awoke without it, and said that he could feel it in his throat. I could not discover that anything was there by digital examination. It gave him scarcely any pain, his voice was not altered, and he could swallow fluids. Not having a suitable pair of forceps at hand, I sent him home, and at 9 next morning, without any difficulty, I removed from behind the cricoid cartilage a vulcanite plate with teeth, and two gold wires. No force was required, but a quiet steady pull, and no inconvenience resulted.

CLASS II.—CASES IN WHICH THE KNIFE HAS HAD TO BE
USED.

Operations for the removal of foreign bodies from the pharynx or œsophagus with the knife are of very great rarity, and involve both danger and difficulty. The following case has been so lucidly described that I have thought it desirable to reprint it *in extenso*.

CASE I.

*Operation for the Removal of Large Artificial Tooth-plate from
the Pharynx. Recovery.*

Case under the care of Mr. Cock. (*Medical Times and Gazette*,
Feb. 9th, 1856.)

Mr. T. G., aged 22, a highly-respectable tradesman at Dartford, was brought to Mr. Cock's residence on Thursday, January 17, by Mr. Martin, surgeon, of Dartford.

It appeared that for some time he had been wearing a false central incisor tooth fixed to a gold plate, which extended some distance on either side.



The foreign body, which was subsequently removed from the pharynx, may be thus described:—The plate formed the segment of a circle corresponding with the hard palate behind the incisor cuspidati and bicuspides teeth. The one extremity terminated in a slender clasp, with two points as sharp as needles, and encircling the bicuspidis tooth; the other extremity formed a single sharp point. The anterior edge of the plate presented three acute angular projections, which correspond with the inter-dental spaces; and from this margin also the false tooth formed a prominent projection. The extreme length of the plate—in other words, the *sector* of the circle—was an inch and five-eighths; while a line drawn from the edge of the tooth to the sector measured exactly one inch.

This plate had been swallowed by the patient during sleep, about 2 o'clock a.m.; and Mr. Martin, finding that it had stuck in the gullet, and could neither be seen nor felt from the mouth, brought him up to Mr. Cock for further advice.

There could be no doubt that the foreign body had lodged in the cervical portion of the swallow, but its exact situation was not very clearly indicated. The pain and irritation, together with tenderness on pressure, all of which were very considerable, were referred to the top of the œsophagus, just below the larynx; but no projection indicating the precise locality of the plate could be detected from the exterior. He was able to swallow fluids, although in very small quantities and with great difficulty. His breathing was not impeded, but he had an irritating laryngeal cough.

Under these circumstances, Mr. Cock judged it most expedient to delay any active measures for extraction until the patient had recovered from the immediate effects of the accident and the fatigue and excitement of his journey. He was therefore advised to go into the hospital, in order that every available means might be used ; and he willingly agreed to this arrangement. In the course of the afternoon he was visited by Mr. Cock, who passed a bougie into the pharynx, and found a total obstruction about the lower edge of the larynx, in fact, just at the junction of the pharynx and œsophagus. A pair of strongly-curved forceps detected the plate, but it could neither be grasped nor moved from its position. As his respiration was unimpeded, and the pain quite bearable when kept at rest, it was determined to postpone further measures until the next day. A full dose of opium was given, as much fluid nourishment as he could get down was ordered, and he was furnished with ice to suck at his leisure.

On Friday, January 18, Mr. Cock saw him, with Mr. Hilton. He was calm and tranquil, and had not suffered acutely except when pressure was made from the exterior, or when he attempted to swallow. It appeared very doubtful whether any fluid which he took into his mouth found its way into the œsophagus. Attempts were made with several instruments to grasp or dislodge the plate, but they all proved abortive, and it was found impossible to pass any instrument between the foreign body and the walls of the gullet, so as to get it below the obstruction. Mr. Cock at length succeeded in introducing a flexible catheter, No. 5, which appears to have found its way between the horns of the clasp which formed one end of the plate. As a means of conveying fluid into the stomach had now been obtained, it was suggested that the action of vomiting might possibly alter the position of the plate, and render it more accessible from the mouth. A pint of milk was accordingly conveyed into his stomach, and then half a drachm of sulphate of zinc and a scruple of powdered ipecacuanha administered. Strange to say, not even a sense of nausea was produced, and the emetics were retained without producing the slightest constitutional effects. A mode of

administering nourishment had, however, been obtained, and we could, therefore, afford to wait and take the chance of any favourable contingency. On Saturday, January 19, Mr. Cock made another attempt. Since the previous day he had twice fed the patient with milk, wine, and beef-tea ; but the catheter was passed with great difficulty, and there was only one particular spot on the left side where it could be made to penetrate into the œsophagus. He was unable to swallow a drop of fluid by natural efforts, but derived great comfort from sucking ice. Mr. Cock attempted to pass a looped wire round the plate, and also manipulated with a flexible tube, from the extremity of which a pair of forceps could be projected, but no success could be obtained, and farther proceedings were laid aside for the present. On Sunday, January 20, no attempts were made, but the patient was fed three times through the catheter ; the introduction of the instrument becoming more and more difficult each time. On Monday, January 21, Mr. Cock again met his colleagues. It was now imperative that some decisive step to remove the foreign body should be taken, as the flexible catheter could no longer be passed, and the patient was beginning to feel seriously the effects of want of nourishment and rest. The position of the plate was pretty clearly ascertained. It was impacted either at the commencement of the œsophagus or else just above (where the œsophagus and the pharynx join). It was determined to cut down and open the gullet. Mr. Hilton assisted Mr. Cock in the operation.

The patient was placed on his back, with his head and shoulders slightly elevated. Chloroform was given, and he was soon quietly under its influence. An incision of about four inches in length was carried from the upper edge of the thyroid cartilage, nearly as far down as the sterno-clavicular joint ; on the left side of which the platysma and cervical fascia were divided, bringing into view the carotid sheath and the omo-hyoideus muscle, which was thick and fleshy where it crossed the wound. This latter was divided, together with some filaments of the descendens lingualis nerve, and two or three small arteries, which were immediately tied to prevent as much

as possible infiltration of blood into the cellular tissue. A little farther dissection laid bare distinctly the common carotid artery, the inner connexions of which were easily separated with the handle of the knife and the finger. It was considered to be an important object to separate completely the carotid artery from its internal attachments; and this having been accomplished, the vessel, together with the sterno-mastoid muscle was drawn outwards and retained by retractors, and thus rescued from injury or molestation, while the further steps of the operation were carried on, the object of which was to reach the upper portion of the œsophagus.

The thyroid body was now exposed by dividing a few of the external fibres of the sterno-hyoid and sterno-thyroid muscles, and the dissection was continued along the outer surface of the gland backwards towards the spine. The tissues were separated partly by the handle of the knife, partly by the blade. An artery, probably a branch of the superior thyroideal, was divided where it crossed the upper part of the wound, bled freely, and was secured with some difficulty. A larger vessel, probably the inferior thyroideal, was seen running across lower down, but escaped without injury. The larynx and trachea were gently drawn over towards the right side, so as to widen the large wound which gaped along the side of the neck.

The œsophagus was reached by following round the surface of the thyroid body, which completely covered and concealed the trachea.

About two inches of the gullet could now be traced with the finger, but no projection indicating the presence of the foreign body could be felt. It therefore seemed tolerably certain that the plate had not descended into the œsophagus, and must be lodged in the lower part of the pharynx. With some difficulty, by tilting the larynx a little forwards and over to the left, the finger was passed behind it, that is, between the pharynx and the vertebræ, and the body was now obscurely felt exactly behind the cricoid cartilage, protected as it were by the inferior course of the thyroid. The point of the knife was now brought to bear on what appeared to be the most prominent part, which proved to be the single tooth, and the grating sensation

of the blade indicated that the pharynx was opened, and the foreign body reached.

The white tooth, in fact, became visible at the bottom of the wound; and, being grasped with a pair of forceps, the opening into the pharynx was dilated upwards and downwards with a blunt-pointed bistoury. After a little manipulation, one end of the plate was disentangled from its attachments and brought out of the wound, but the entire body was not extricated until a further slight division of the walls of the pharynx had been made. This, however, was soon accomplished with the assistance of Mr. Hilton, who cut along the edge of the gold plate, while Mr. Cock gently withdrew it with one hand, and protected the parts with the fingers of the other. The patient was carried to bed, and cold water applied to the wound, no means being used to bring the edges together. On recovering from the effects of the chloroform, he seemed to have suffered but little from the operation, expressed himself as comfortable and free from pain, and returned eagerly to his former occupation of sucking ice. An enema of beef-tea and wine was thrown up, as he had had no nourishment since the previous day. In the evening, he complained of great exhaustion, or rather sense of starvation, and Mr. Cock gave him nourishment through the catheter, and a full dose of opium.

January 22.—Was free from all untoward symptoms, and only complaining of an empty stomach. He was fed with milk and beef-tea three times. Sucking ice was a great luxury, although he believed that none of it passed into the œsophagus, and, as far as could be ascertained, no water found its way out by the wound. On the third day, January 24, Mr. Cock introduced the common œsophagus feeding-tube, which passed readily, without pain or obstruction. He has since been regularly fed by his dresser, Mr. Dyer, at first, three times, but afterwards, at his own request, four times in the twenty-four hours. He is always ready, indeed eager, for his meals, and receives them with great enjoyment. His diet consisted of beef-tea, brandy, and egg. arrowroot, with milk or wine. Notwithstanding this nourishment, of which he swallowed

about four pints in the twenty-four hours, he was evidently losing flesh and strength. Accordingly, Mr. Cock ordered as much pounded meat to be mixed with the beef-tea as could be made to pass through the tube, and directed an ounce to an ounce and a-half of cod-liver oil to be given at each meal. He takes an opiate every night, but the quantity is undergoing gradual diminution.


February 5.—The increase of nutriment, or the oil, or both, have produced a decided improvement in his appearance, and he expresses himself as feeling stronger and better. His spirits have all along been good and hopeful.

The wound has looked healthy from the first, and has now contracted to half its original size. Since the operation nothing has been swallowed by natural deglutition, and he is very unwilling to make the attempt, as it causes considerable pain, and a sensation as if the wound was being rent open. He does not appear to swallow his saliva.

Had the foreign body been lodged in the upper part of the cesophagus, its extraction would probably have been more easily accomplished; but the protection which was afforded by the cricoid cartilage in front, and the posterior edge and inferior course of the thyroid, which, as it were, overlapped it at the side, rendered the access to it difficult and tedious, and materially complicated the operation.

Recovery in this case has since been reported. The wound wholly closed, and in about a month the man was able to swallow well. For the first three weeks all the nutriment taken was conveyed into the stomach by instrumental aid, but by the end of that time the wound had closed.

Mr. Cock has also recorded, in "Guy's Hospital Reports," a second case in which he had to perform the operation of pharynxgotomy.



CASE II.

Silver Tooth-plate impacted in the Pharynx. Operation and recovery.

Mr. Cock's Case ("Guy's Hospital Reports," Vol. xiii., 3rd series.)

A man was in the habit of wearing a silver plate on which seven teeth had been formerly fastened, but though the teeth had fallen away he continued to wear the plate. One night he woke up choking, the plate having slipped into the pharynx while he was asleep. Attempts were made unsuccessfully to remove it through the mouth. The patient at length objected to further interference, and placed himself under the care of Mr. Cock. The breathing was then unaffected, nor was there any constitutional disturbance, nor any other symptoms than that of a little local inconvenience, aggravated by attempts to swallow. He had taken no food for 70 hours, for whenever he attempted to swallow anything solid or liquid it returned.

A large flexible catheter was passed by the side of the plate down the œsophagus, and through it the patient was fed. Mr. Cock, finding there was no prospect of moving the plate without opening the pharynx, operated upon the man four days after the mass had been swallowed. The plate was removed successfully. The mass consisted merely of the metallic portion of the artificial structure, but had projecting from its edges six points or sharp wires, upon each of which a tooth had been formerly fixed, and also from the end there projected two sharp arms, which had embraced a tooth or stump. Like the first case related by Mr. Cock, its shape rather than its size interfered with its passage down the œsophagus. It measured one inch and eleven-sixteenths in its largest diameter.

Cases in which similar operations have been performed (although of rare occurrence) have been recorded, usually after swallowing pieces of

bone, but although the operation appears to have been successfully accomplished, death has in most instances followed in from one to three days. The dangers attendant upon the operation of œsophagotomy appear to be, 1st. hæmorrhage during its performance; 2nd. sloughing of the wound; and 3rd. subsequent visceral inflammation. But it must be borne in mind that the two latter results are more likely to occur if the impacted body be allowed to remain, than from the operation. Abscess and sloughing attendant upon delay point to the necessity of early operating, if the good results obtained by Mr. Cock are to be taken as any guide.

CASE III.

Extraordinary Case of Foreign Body in the Larynx.

(From the *British Medical Journal*, June 5th, 1875.)

THERE are numerous instances on record of foreign bodies, such as coins, rings, fruit-stones, etc., becoming impacted in the larynx without causing any very urgent symptoms; but the following case, related by Dr. Leopold Schrötter, in his lately published *Report of the Clinic for Laryngoscopy at the Vienna University* (1875), is most extraordinary. It seems almost incredible that during sleep, when respiration is quiet and the glottis is not open to its fullest extent, a sober man could unconsciously get into his larynx a foreign body exceeding, in all its diameters, the dimensions of a glottis opened as widely as possible. A very intelligent man noticed at breakfast that his false teeth (four upper incisors attached to a gold plate) were missing. When he began to search for them, he felt, for the first time, some obstruction in the throat and some

difficulty in breathing, and then concluded that he must have swallowed the teeth during the night. He had taken on the previous evening only a light meal, without much alcohol. Dr. Schrötter saw the patient the same day; he then spoke without difficulty, but complained of pain in the lower part of the throat. Laryngoscopic manipulation was difficult, and a superficial examination showed nothing abnormal. The foreign body was therefore supposed to be in the œsophagus; and, on passing a probang, resistance was experienced in the upper third, but nothing could be brought up. This failure, and the increasing dyspnœa of the patient, led Dr. Schrötter to make a very careful examination of the larynx; and, after several trials, a foreign body was seen under the vocal cords, and soon the plate and two teeth were made out with certainty. Dr. Czerny (then Billroth's assistant, now Professor at Freiburg,) was then called in, to assist in laryngotomy. On examination, he also could find nothing abnormal in the larynx, but met with the same resistance in the œsophagus; his attempts at extraction were, however, as unsuccessful as Dr. Schrötter's had been. The latter now urged immediate laryngotomy, but Czerny thought that, as Schrötter saw the foreign body so clearly, he might first attempt its removal through the mouth by the aid of the laryngoscope—an operation which he had successfully performed in other cases. Although not expecting much from such an attempt, less on account of the anatomical difficulties than because the foreign body was turned with a smooth surface upwards and offered little hold for the forceps, Dr. Schrötter consented to make the trial; and, as he had other business, and the patient was somewhat easier, he appointed 5 P.M. for the operation. However, when he returned at that hour, he found that the dyspnœa had increased so rapidly during his absence, that Dr. Czerny had been hastily summoned about three o'clock, and had been obliged to perform laryngotomy at once, the patient's breathing being suspended during the operation. On dividing the crico-thyroid membrane, the point of the bistoury struck the artificial teeth; an attempt was made to remove the foreign body through the wound by means of forceps, but, not succeeding in this, Dr.

Czerny forced it up through the glottis, and removed it through the mouth. The patient wore a tube for thirteen days, but made a good recovery. When he was quite well, Dr. Schöter again passed a probang, in order to ascertain, if possible, what had deceived both himself and Czerny in regard to the condition of the œsophagus. He met with the same obstruction, and concluded that, as the patient was of a decidedly rachitic build, it was probably due to a prominent vertebra.

The artificial teeth measured $\frac{3}{4}$ of an inch by $1\frac{1}{4}$.

CLASS III.—CASES WHERE ARTIFICIAL TEETH HAVE BEEN SWALLOWED AND PASSED BY THE PATIENT, OR EJECTED.

CASE I.

Foreign body in the Œsophagus.

MR. JOHN WINDOR'S CASE. (*Medical Times and Gazette*, Feb. 23rd, 1856.)

ON May 2, 1855, I was consulted by Mrs. D., aged 30, who stated that, during the preceding night, in her sleep, she had accidentally swallowed a piece of plate, containing three artificial teeth, corresponding to the outer incisor, the canine, and first bicuspid. The accident appeared to have been occasioned by this piece having been affixed to a faulty tooth, and thus being too easily detached.

Notwithstanding the inconvenience and suffering thus produced, she had walked to my house, in order, if possible, to get the substance removed. It had passed too far down either to be seen or to be felt by the finger. She referred the sensation produced to a point behind the upper part of the sternum.

On having recourse to the probang, I manipulated very gently with it, and, after a little time, succeeded in passing it down the œsophagus, hoping that it had carried the extraneous body before it into the stomach, especially as she thought herself much relieved. I prescribed for her a little soothing and aperient medicine.

On the following morning she came to me again, stating that she still felt as if there was some obstruction in the part. On having again recourse to the probang, I met with resistance near the upper part of the œsophagus, but, after a short time, it again passed, inducing us to hope that the obstruction was now removed.

On visiting her at her own residence, two days afterwards, she stated that, from her own sensations, she believed the substance had not really descended into the stomach until the following night after she had called upon me the second time, and on the succeeding day it was discharged through the bowels.

On examining the plate, I found the teeth had not been attached to gold, but to an inferior metal, to lessen expense, I suppose.

Except a little soreness in swallowing for a few days, she suffered, I believe, no further inconvenience.

CASE II.

Piece of Six Artificial Teeth on Gold Plate Swallowed and Passed.

MR. THEOPHILUS TAYLOR'S CASE. (*Lancet*, April 3rd, 1869.)

Mr. George Pollock in bringing forward this case remarks, "that when once a foreign body is introduced into the pharynx, its *shape* is, to some extent, of more importance than its *size*. Its

easy and safe progress onwards through the alimentary canal will greatly depend on the former.



The extreme diameter of this plate is $1\frac{3}{4}$ inch. It will be observed that it has no sharp or projecting points; its entire margin is comparatively smooth.

"I WAS called to see Mrs. — between two and three o'clock p.m., on February 25th, and was told by her husband that, while taking some soup a few minutes before, she had swallowed her set of artificial teeth, consisting of six teeth set in a gold plate for the upper jaw. She complained of a burning sensation at the epigastric region, but of no other distress; and she could then swallow easily. I advised her to take castor oil, and to live on farinaceous diet.

"I saw her the next day, when she expressed herself as 'quite comfortable, and not at all inconvenienced.' The bowels acted freely from the oil that day and the next. On the morning of Feb. 28th, at 8 a.m., she had a 'bearing-down' feeling in the rectum and urgent desire to go to stool, and presently the teeth passed, as complete as they had been swallowed three days before. The mass was enveloped in thick mucus when first examined. The patient is perfectly well, and has not had any unfavourable symptoms since."

CASE III.

Four Artificial Teeth on Gold Plate Swallowed, and extracted through the Rectum with Instruments.

Dr. JULIUS'S Case, communicated by Mr. THOS. H. HARDING. (*Lancet* April, 1860.)

MRS.—swallowed a gold plate, on which were four teeth fixed with clasps at each end of the plate. One of the clasps had become bent, and formed a sharp point. Some hours afterwards she complained of severe pain in the stomach, which seemed very much extended. After a lapse of some hours the pain suddenly left her. Felt nothing more untill about twenty-four hours afterwards, when she suffered severe pain in the caput coli, which continued for some hours, and then passed off in a similar manner.

The next morning Dr. Julius was hurriedly sent for, and on arriving found her in great agony, with a constant desire to pass urine, and relieve the bowels. Upon passing a catheter into the rectum, he distinctly felt a hard metallic substance firmly fixed across the bowel, about two inches from the sphincter. He now introduced a three-bladed speculum, and dilated the bowel as much as could be borne, and with the aid of two pairs of forceps he brought down the sharp end of the plate, and then extracted it entire, with very slight injury to the mucous membrane. In a few days she was quite well.

The teeth swallowed were two central, and two lateral incisors, with the clasp extending to the first molar.

CASE IV.

Two Artificial Teeth on Gold Plate, nineteen Days in the Œsophagus, and afterwards for ninety-seven Days in the Stomach.

(Mr. J. BLACKSTONE'S Case.) Communicated to the *Lancet*, April 3rd, 1869, by Mr. GEORGE POLLOCK.

I have already recorded this case,* but as the additional particulars now communicated are not only very interesting but also instructive, I have thought it better to include it in this summary.

Mrs. T., æt. about 33, while attempting to swallow some pills, dislodged her artificial teeth, fixed to a small gold plate. The teeth consisted merely of the two central incisors. The mass dropped into the pharynx as soon as it became dislodged. The patient almost immediately felt pain "down the throat," and shortly afterwards, on attempting to take food, experienced difficulty in swallowing it; the greater portion of it returned almost as soon as swallowed. It was evident that the rejected food had not passed into the stomach. The pain was referred to the median line, rather low down in the chest, and to a point above the epigastrium; it was fixed and persistent, sometimes sharp, and always increased on any attempt to take solid food or fluid.

She was very soon seen by Mr. J. Blackstone, of Gloucester-place, Regent's-park, who prudently watched the case for some days; nor did he make any attempt to interfere with instruments, as the plate was evidently out of the reach of forceps. Finding, however, that the pain continued, and that there was not only difficulty in taking nourishment, but that it was

* "Trans. Odonto. Soc.," vol. ix. page 43.

chiefly obliged to be taken in a fluid form, and always with great aggravation of pain, he requested me to see the patient. This was on the tenth day after the accident. There was still much discomfort, and an inability to swallow food without pain: it could only be taken in small quantities, and that chiefly in the fluid form. The pain was described to be low down in the median line, and referred to a spot corresponding to the lower extremity of the œsophagus.

At our request the patient made an attempt to swallow a little fluid in our presence, when it became quite evident that some positive partial obstruction existed in the œsophagus. The fluid was taken with caution, in small quantities, and slowly, otherwise a sensation of choking was produced; nor did the small quantity pass into the stomach as freely as it should have done.

No attempt was made on this occasion to pass any instrument. As the pain was referred to so low a position, it was considered just possible that, as the foreign body was probably far down, solid food persistently taken might propel the mass into the stomach. The patient was therefore recommended to try the effect of swallowing large pellets of well-masticated bread; with the hope that, if the œsophagus could thus be slightly distended, the foreign body might be pushed into the stomach by the food. Another reason for avoiding instrumental interference was, that the plate was described to be rough at its edges, with one or two sharp points projecting therefrom. It was considered that, with such a mass, fixed by sharp points to the walls of the œsophagus, forcible attempts to push it onwards might probably be followed by serious mischief. It was therefore decided to wait a few days longer, with rather a forlorn hope that some favourable change in the position of the foreign body might take place; all aperient medicine to be avoided in the mean time.

On the 4th of January the local symptoms were unchanged, but the patient was evidently thinner and weaker, for she had not been able to take much solid food since the day of the accident. She was also very anxious about herself, and was becoming very nervous and desponding. An œsophagus-tube

was now passed very slowly and gently through the mouth and pharynx into the œsophagus ; when more than halfway down, and near the cardiac orifice, the extremity of the instrument came in contact with some solid resisting body. With very slight continued pressure the latter appeared to be almost immediately dislodged, and the end of the tube then readily passed into the stomach ; nor was anything felt to rub against it or resist it on its withdrawal. The patient immediately expressed herself relieved from the pain, and was now able to swallow solids and liquids without difficulty.

In a few days, however, this lady again began to complain of pain, but it was now at a different spot. The pain was referred more to the right side, and somewhat lower than before—apparently about the neighbourhood of the pyloric extremity of the stomach.

This new symptom persisted more or less without relief, and without alteration of position ; but the patient was able to take food, and she generally improved in condition. The treatment laid down was, to avoid aperient medicine, and to attend generally to the state of the health.

Thus the patient continued, without any perceptible alteration, until the 11th of April. On that day she had been ordered to take two pills. While in the act of swallowing them she vomited, and brought up a quantity of fluid from the stomach. In the act of vomiting she heard something strike against the basin, and on more carefully examining the contents, found, to her great delight, that she had brought up the artificial teeth and plate, as perfect and as bright in condition as on the day the mass had been swallowed.

This foreign body was nineteen days in the œsophagus was then dislodged, and remained ninety-seven days in the stomach.



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The Artificial Teeth, of which this is an accurate representation, were exhibited to the Odontological Society at the Meeting in December last.

CASE V.

*Two Artificial Teeth on plate swallowed, and passed by Patient.
Treatment.*

Communicated to the "Medico-Chirurgical Society of Edinburgh" by
Mr. JOSEPH BELL.

Two teeth with plate attached had been swallowed by their wearer, a young woman. Mr. Bell was suddenly called out to attend her, as she was supposed to be dying from suffocation. On reaching the house, however, he found that the spasm had passed off. On making inquiry, he found out that her false teeth had become loose, but yet she had foolishly neglected to take them out upon going to bed.

By passing a probang into the stomach he hit upon a hard body, which he had no doubt was the teeth. Notwithstanding Mr. Little's success (see Case III., Class I.) in directly extracting them from the stomach, he did not try to do so, more especially as the gold plate was sharp-edged. He therefore ordered the patient to keep in her bed, and take as *indigestible* a diet as possible, consisting of cheese, porridge, suet dumpling, stewed apples, &c., along with opium occasionally. By this means large solid stools were produced, in one of which the teeth had been passed by the patient, notwithstanding the size and jagged outline of plate, without any pain or damage to the alimentary tract.

CASE VI.

*Plate with Artificial Teeth swallowed and passed by the Patient.
Novel Treatment.*

Communicated to the "Medico-Chirurgical Society of Edinburgh" by
Dr. DICKSON, Feb. 2nd, 1876.

Mrs. L. called about 6 o'clock a.m. on Christmas day last, stating that she had, while asleep, swallowed her artificial

teeth. On passing a taper-pointed bougie, an obstruction was encountered at about the level of the middle of the sternum. Emesis was tried, but unsuccessfully. An expanding hair probang was then used, with the result of pushing the obstructing material into the stomach. She was then told to go home and cut up a quantity of *sewing threads* into finger-lengths and swallow it in thick porridge. She was also ordered to eat plenty of figs and raisins, and *not to take* any purgative medicine.

This treatment was continued for eight days. Each morning she felt a gnawing pain at the pit of the stomach, which was always relieved by food. On the 1st of January the pain began to shift, and on the forenoon of the 2nd she felt a severe cutting pain at the anus while at stool, when she found that she had passed the teeth wrapped up in the threads.

She had been asked, in the event of her passing the teeth not to clean them in any way till examined, but before my arrival she unfortunately had washed them, leaving only a few of the threads adhering. The hollows were filled with a substance like figs.

The set consisted of a gold plate $1\frac{3}{4}$ inches wide by 1 inch deep, and measured $2\frac{1}{2}$ inches round the front, with hooks at each side for fastening to the natural teeth. My reason for using the thread was, that having seen hawks "cast" up the bones of mice neatly wrapped in the fur, I thought that in a similar way the peristaltic action of the stomach and bowels might envelop in indigestible fibrous matter such things as pins, bones, teeth, &c., inadvertently swallowed. I tried the plan with good results some time ago in a case of pin-swallowing. Cotton, tow, or similar substances, might suit even better than thread.

CASE VII.

Two teeth, on gold plate, swallowed and passed without pain or difficulty.

(Communicated by Mr. W. R. Wood, L.D.S.)

The gold plate was one inch and a half in length, and a little less than half an inch in width. It had two sharp clasps, one at each end, and had fixed on it two insulated mineral

teeth. The lady swallowed the piece without at the moment being aware that she had done so. It took twenty-two days in passing through the alimentary canal, and its passage was not attended with any inconvenience or pain ; indeed, the lady seemed to regard it quite as an ordinary occurrence.

CLASS IV.—WHERE ARTIFICIAL TEETH HAVE BEEN SWALLOWED AND FORCED INTO THE STOMACH ; AND CASES WHERE DEATH HAS ENSUED.

CASE I.

A Tooth-plate fixed in the Pharynx, producing entire closure of the Glottis.

Communicated by Mr. GEORGE POLLOCK to the *Lancet*, April 3rd, 1869.

W. M.—, aged twenty-four, was brought in dead to St. George's Hospital on August 16th, 1862. He was stated to have been running, when he stumbled and fell to the ground. As he did not rise, he was supposed to be in a fit, and was conveyed to the hospital. When admitted he was quite dead. The cause of death was unsuspected.

On *post mortem* examination, the lungs were found congested, but all the other viscera healthy. When the finger was passed into the pharynx, in order to take out the adjoining structures, an irregular hard mass was felt lying upon the epiglottis. This proved to be three false teeth, fixed upon a metal plate, having a sharp, prominent hook at each end to grasp some teeth in the upper jaw. The false teeth lay in the pharynx, but were loose and unattached in that position. There was no mark of injury upon the surrounding mucous membrane.

No measurement is preserved of this plate, as the friends of the man would not allow it to be left at the hospital. There can be no doubt that, in this case, the plate became dislodged, fixed by its sharp points in the pharynx, and, pressing on the glottis, produced immediate suffocation.

CASE II.

Artificial Teeth Swallowed, Dislodged, and ultimately Passed by the Patient.

Mr. HENRY SMITH's Case. (*Lancet*, April 1st, 1871.)

ON the night of November 30th, 1870, I was summoned to Mitcham by Dr. Hamilton, who had the wisdom to telegraph the nature of the accident; and I thus went down with suitable instruments. I found a corpulent butcher in great distress, he having six hours previously, by some means or other, allowed his false teeth, with their plate, armed, as is seen with most formidable hooks on either side, to slip down his throat.



He at once sent for Dr. Hamilton, who, on passing his finger down into the pharynx, could distinctly feel the foreign body on the right side; but, unfortunately, he had not the requisite instruments, and in his endeavours to dislodge it, the body got out of his reach.

On my arrival, the patient pointed to just above the clavicle on the right side as the spot where the intruder lay. I at once passed a long pair of crane-bill œsophagus forceps, and imagined that I could feel the foreign body, but I could not catch it. I tried carefully again and again with other instruments; but, as considerable bleeding ensued, and as there was great distress on the part of the patient, I determined to push the body down into the stomach, and with that view passed a full-sized œsophagus bougie into the stomach, when the sensation of the presence of the tooth-plate at once ceased.

The patient was ordered to keep perfectly quiet, and to take plenty of gruel porridge and oil. He had no pain at all, except for about five hours on the day the foreign body passed away, which event happened nine days after I had pushed it down. The patient has suffered nothing since.

Dr. King narrated before the Medical Society of London, on the 16th January, 1871, a case where a man swallowed his false teeth. He was seen by him at the Edinburgh Infirmary. Mr. Syme not being able to pull the teeth up, at once pushed them down. A few days after Dr. King was sent for to see the man, and found him dead. The angular hooks on the tooth-plate had torn the œsophagus, and perforated the aorta. In the stomach was a complete cast of its cavity in blood clot.

The course of treatment to be adopted in cases where artificial teeth have got into the pharynx or passed into the stomach, whether unaided or by the use of an instrument, has already been dwelt upon while narrating the cases quoted, but a few remarks may yet be profitably appended.

Mr. Henry Smith has observed that it is a dangerous practice to force the swallowed teeth into the stomach. He continues: "I know of two instances where death followed this plan of treatment, one of them from hæmorrhage; but I am not sure that prolonged and forcible attempts to extract such a formidable-looking body would

not be attended with as much danger ; and there are so many instances on record where such ugly bodies have passed through the intestinal tract with safety, that the surgeon is quite justified in resorting to the expedient I adopted, providing he has first made an effort to extract the substance. The attempts I made were quite sufficient to tell me that I should not succeed in extracting the false teeth ; and, indeed, I necessarily put the patient to so much pain and distress, and brought about so much bleeding, that I was only too glad to desist from further attempts. If these attempts do not succeed at once, they are not likely to succeed at all."

Mr. Thomas Smith writes to me : " In all cases I have had to do with, or been consulted about, I have either used or advised pharyngeal forceps with a gradual curve (not rectangular), with deeply serrated ends, so as to hold firmly ; and if the foreign body could not be grasped with the forceps having blades expanding laterally, I have used those with blades expanding in an antero-posterior direction.

Mr. George Pollack, who has given considerable attention to this subject, writes to the *Lancet*, April, 1869 :—

" The stomach was removed from a dead body with the duodenum attached, and the cardiac half was cut off. The pyloric half was then held up and opened, the pyloric orifice and duodenum being dependent. A half-crown piece was

dropped into this portion of the stomach ; with a little shaking it passed through the pylorus and dropped out through the duodenum into a basin below. The artificial tooth-plate (Class III., Case IV.) was then dropped into the same portion of the stomach, held up in a similar manner. With very little shaking it soon slipped also through the pyloric orifice and duodenum. Another plate with artificial teeth was then dropped into the suspended portion of the stomach. The prominent tooth at once fell into the pyloric orifice, but the points at the extremity of the tooth-plate hooked into the sides of the valve, and no shaking or manipulation, *without force*, could have succeeded in getting it through the orifice and duodenum ; the sharp projecting points alone stopped the progress from the stomach into the duodenum, and from the ileum into the caput coli.

“The plate (Class III., Case II.) is larger than either of those referred to by Mr. Cock, but the results of the cases are materially different. The smooth-edged plate, but the largest, passed through the whole alimentary canal without any great inconvenience to the patient in three days, while the other two, with sharp projecting points, were at once impacted in the pharynx, and could only be removed through an external opening.

“It thus appears, that even a small tooth-plate with sharp points or rough edges is not likely to pass beyond the stomach, even should it get so far, while a larger one with smooth edges may pass through the alimentary canal without much discomfort. A large plate with sharp points at its edges cannot pass beyond the pharynx, and when once there, cannot readily be removed without the pharynx is opened externally ; but a large plate with smooth edges having passed into the pharynx, though it cannot get beyond that point, may be withdrawn through the mouth, and does not necessarily involve a very serious operation.

“Mr. Cock observes, ‘As the use and application of artificial teeth daily increases, and as many of them are imperfectly fitted and carelessly worn, there can be no doubt that this casualty will occur again and again.’

“If the foreign body be lodged in the pharynx, and there

be sharp points projecting at the edge, no effort on the part of the surgeon will succeed in pushing it downwards, nor should any such attempt be thought of. It is either retained there by its size, as in Sir James Paget's case, or by its shape and sharp points, as in the cases recorded by Mr. Cock. When satisfied that the mass is in the pharynx, the surgeon should attempt first to remove it through the mouth; but if these attempts fail after a few trials, they should not be persevered in. Violent and oft-repeated trials to extract it will only be followed by local irritation, and might even produce more serious mischief. When, therefore, gentle means have failed to relieve the pharynx of the foreign body œsophagotomy should be had recourse to without delay. As regards general treatment, I am of opinion that we cannot be too particular in abstaining from aperient medicine: the more solid the contents of the stomach the greater will be the facility in passing, especially when once in the lower bowel; whereas if the contents of the bowels be entirely liquid, the foreign body may become more or less impeded in its exit by the walls of the bowel contracting on it.

“Practical experience has established this kind of treatment as a rule amongst those who make their living by passing false coin. When detected, they swallow whatever bad money they may have about them, and if they escape they live on constipating diet until the coin has passed.”

Mr. Carter, before the Medical Society of London, related a case where a brooch was swallowed. The patient was made to eat a large quantity of bread, and then an emetic was given, when the bread and the brooch all returned together; but by far the most valuable suggestion that has yet been offered where foreign bodies have got into the stomach, is that devised by Dr. Dickson, and recorded in this summary at

Case VI., Class III. He recommends that cut-up thread, worsted, tow, or similar substances, should be mixed with the food, the diet being made as constipating as possible. I am happy in being able to state that Mr. Joseph Bell, of Edinburgh, has kindly written to inform me that in two cases he has met with, besides that related, (Case V., Class III.), where teeth have been swallowed, this constipating diet and the mixture of porridge and thread has proved most successful, the foreign body having been passed in from six to twelve days without any unpleasant symptoms ensuing; and we can arrive at no other conclusion but that the practice formerly adopted of administering purgatives is the most dangerous that could well be devised, and calculated, if the artificial teeth or other foreign bodies have any clasps or sharp projections, to lacerate the alimentary tract.

In conclusion, allow me to take this opportunity of thanking those gentlemen—members of the medical profession—who have so materially assisted me with new cases, and suggested treatment. I also hope that I may be permitted in the name of the Odontological Society to say how much we are indebted to the medical journals, not only for their published cases, but also for the use of the illustration blocks, without which some of these cases would lose so considerably in interest.